IN THE CLAIMS

The status of each claim in the present application is listed below.

Claims 1-38: (Canceled).

39. (New) A method for the selective concentration of a macromolecule or of an agglomerate of molecules or of particles initially contained in a first liquid phase, which is a liquid sample, the method successively comprising:

providing a liquid medium, wherein the liquid medium comprises:

the first liquid phase, which is a liquid sample comprising the macromolecule or the agglomerate to be concentrated; and

a liquid interface layer, wherein the interface layer (a) is a second liquid phase separated from the liquid sample and deposited at the surface of the at the surface of the liquid sample, (b) comprises at least one molecule which fixes the macromolecule or the agglomerate and (c) has a small volume compared to the volume of the liquid sample;

forming a stabilized dispersion, which is of the foam type or the emulsion type, in the liquid medium, by mechanical agitation of the medium or by injection, directly in the liquid medium, of gaseous or liquid capillary jets, to form, in the case where the dispersion is of the foam type, thin interstitial films between bubbles, and to form, in the case where the dispersion is of the emulsion type, an interstitial medium constituted by the liquid sample in which the liquid interface layer is divided up into globules within said liquid sample; and

resorbing the dispersion to reform the interface layer by drainage of the insterstitial film constituting the foam or by drainage of the interstitial medium constituting the emulsion, wherein the macromolecule or the agglomerate is concentrated in the interface layer.

40. (New) The method according to Claim 39, wherein forming the stabilized dispersion is carried out by mechanical agitation of the medium.

41. (New) The method according to Claim 39, wherein forming the stabilized dispersion is carried out by injection, directly into the liquid sample, of gaseous or liquid capillary jets.

42. (New) The method according to Claim 39, wherein the molecule which fixes the macromolecule or the agglomerate is capable of fixing the macromolecule or agglomerate by chemical affinity, electric or magnetic polarization, and/or ionization.

43. (New) The method according to Claim 39, wherein a macromolecule is selected from the group consisting of nucleic acids, proteins, antigens and antibodies.

44. (New) The method according to Claim 39, wherein an agglomerate of molecules is concentrated and is a prion.

45. (New) The method according to Claim 39, wherein an agglomerate of particles is selectively concentrated and is colloidal particles.

46. (New) The method according to Claim 39, wherein the macromolecule is DNA.

47. (New) The method according to Claim 39, wherein the macromolecule is DNA, and the molecule capable of fixing the DNA is functionalized with a probe to allow specific hybridization of the DNA.

48. (New) The method according to Claim 39, wherein the molecule capable of fixing the DNA is a lipid functionalized with a DNA probe complementary to the DNA.

49. (New) The method according to Claim 48, wherein the lipid is a biotinylated lipid comprising an avidin group or avidin derivative, onto which the complementary DNA is grafted by means of a biotinylated end incorporated into the DNA beforehand.

50. (New) The method according to Claim 48, wherein the lipid is a cationic lipid comprising at least one spermine group onto which the complementary DNA is adsorbed.

51. (New) A method for the purification of a macromolecule or of an agglomerate of molecules or particles initially comprised in a liquid sample, the method comprising

concentrating the macromolecule or the agglomerate within an interface layer using the method according to Claim 39,

eliminating the liquid sample depleted of the macromolecule or the agglomerate; and

recovering the interface layer comprising the macromolecule or the agglomerate.

52. (New) A method for the detection of a macromolecule or of an agglomerate of molecules or particles initially comprised in a liquid sample, the method comprising

concentrating, within an interface layer, the macromolecule or the agglomerate using the method according to Claim 39, and

detecting the macromolecule or the agglomerate within the interface layer.

53. (New) A method for the amplification of a macromolecule or of an agglomerate of molecules or of particles initially comprised in a liquid sample, the method comprising

concentrating the macromolecule or the agglomerate within an interface layer using the method according to Claim 39, then

replacing the liquid sample with a liquid comprising amplification agents, and then

amplifying the macromolecule or the agglomerate by means of the agents.

54. (New) The method according to Claim 53, wherein the macromolecule is a DNA.

55. (New) The method according to Claim 53, wherein an agglomerate of molecules is amplified and is a prion.

56. (New) The method according to Claim 39, wherein the molecule which fixes the macromolecule or the agglomerate is a surfactant.

57. (New) The method according to Claim 39, which comprises forming a stabilized dispersion of the foam type.

58. (New) The method according to Claim 39, which comprises forming a stabilized dispersion of the emulsion type.